

CLAIMS

I Claim:

1. An implement for clearing brush and trees, comprising:
 - 1 a self-propelled vehicle;
 - 2 at least one boom mounted upon the vehicle; said boom being
 - 3 constructed for articulated motion of a distal end thereof;
 - 4 a cutting disk operatively mounted for rotation to the distal end of said
 - 5 boom to cut brush and trees when rotated; and
 - 6 a secondary power source supported on the self-propelled vehicle and
 - 7 used to primarily power the cutting disk.
 - 8

2. An implement according to claim 1 and further comprising:
 - 1 a plurality of detachable cutting disk teeth mounted upon an inner face
 - 2 of the cutting disk; upon an outer face of the cutting disk; and peripherally about
 - 3 peripheral portions of the cutting disk.
 - 4

3. An implement according to claim 1 wherein the secondary power source comprises a secondary engine operatively connected primarily to the cutting disk for rotation thereof.

4. An implement according to claim 1 and further comprising: 1
a cutting head pivotally mounted to the distal end of said boom; said 2
cutting head supporting the cutting disk for rotation relative the distal end of the 3
boom; and said cutting head providing selective pivot action of the cutting disk 4
about a pivot axis oriented generally vertically relative the self-propelled vehicle. 5

5. An implement according to claim 4 and further comprising: 1
a cutting head swivel operatively connected to the cutting head; said 2
cutting head swivel providing selective swivel action of the cutting disk about a 3
swivel axis which is generally traverse to the pivot axis of the cutting head. 4

6. An implement for clearing brush and trees, comprising: 1
a cutting head frame; 2
a motor mounted to the cutting head frame; 3
a drive shaft operatively coupled to the motor for rotation; said drive 4
shaft constructed to be selectively uncoupled from the motor; 5
a bearing mechanism removably secured to the cutting head frame and 6
supporting the drive shaft for the rotation; 7
a cutting disk mounted on the drive shaft for rotation therewith; and 8
wherein the bearing mechanism can be detached from the cutting head 9
to facilitate replacement of the bearing mechanism and drive shaft. 10

7. An implement according to claim 6 wherein the bearing
1
mechanism and drive shaft are constructed to be detached from the cutting head as
2
a unit. 3

8. An implement according to claim 6 and further comprising:
1
a first jaw formed in a portion of the cutting head frame; and
2
a second jaw pivotally mounted to said cutting head frame for selective
3
pivotal movement relative to said first jaw to allow controlled grasping action
4
between said first jaw and said second jaw. 5

9. An implement according to claim 8 and further comprising:
1
a hydraulic cylinder having a first end pivotally connected to the cutting
2
head frame; and
3
a piston slidably extending from an opposite second end of the hydraulic
4
cylinder; said piston having a distal end pivotally connected to the second jaw
5
wherein actuation of the hydraulic cylinder drives the piston to provide the pivotal
6
movement of the second jaw relative to the first jaw. 7

10. An implement according to claim 6 wherein the bearing
1
mechanism comprises a first portion, and a second portion extending longitudinally
2
from the first portion; said first portion is removably secured to the cutting head
3
frame by a first set of securement members and said second portion is removably
4
secured to the cutting head frame by a second set of securement members; and
5
wherein removing said first and second sets of securement members releases the
6
drive shaft and bearing mechanism from the cutting head frame as a unit.
7

11. An implement according to claim 10 wherein said first set of
1
securement members are accessible from outside the cutting head frame; and
2
wherein said second set of securement members are housed within a portion of the
3
cutting head frame and accessible from an opening in the cutting head frame.
4

12. An implement for clearing brush and trees, comprising:
1
a self-propelled vehicle;
2
at least one boom mounted upon the vehicle; said one boom being
3
constructed for articulated motion of a distal end thereof;
4
a cutting head frame mounted to the distal end of the boom;
5
a motor mounted to the cutting head frame;
6
a drive shaft operatively coupled to the motor for rotation; said drive
7
shaft constructed to be selectively uncoupled from the motor;
8

a bearing mechanism removably secured to the cutting head frame and 9
supporting the drive shaft for the rotation; the bearing mechanism constructed to 10
be detached from the cutting head to facilitate replacement of the bearing 11
mechanism and drive shaft; 12

a cutting disk mounted on the drive shaft for cutting brush and trees 13
when rotated; and 14

a secondary power source on the self-propelled vehicle used to primarily 15
power the cutting disk. 16

13. An implement according to claim 12 and further comprising: 1
a shroud connected to the cutting head frame and extending about 2
portions of the cutting disk. 3

14. An implement according to claim 12 and further comprising: 1
a turret mounted for pivotal motion upon the self-propelled vehicle about 2
a generally vertical pivot axis relative a support for the self-propelled vehicle; and 3
wherein said boom is pivotally mounted on said turret for the articulated motion of 4
the distal end. 5

15. An implement for clearing brush and trees, comprising:
1
a vehicle;
2
a primary engine supported and operatively coupled to the vehicle to
3
move the vehicle across ground;
4
a boom mounted upon the vehicle; said boom being constructed for
5
articulated motion of a distal end thereof;
6
a cutting disk mounted to the distal end of said boom for cutting brush
7
and trees when rotated; and
8
an auxiliary engine supported on the vehicle and providing power to
9
rotate the cutting disk.
10

16. An implement according to claim 16 wherein the auxiliary engine
1
provides power only to the cutting disk.
2

17. An implement according to claim 16 and further comprising:
1
a cutting head frame pivotally mounted to the distal end of said boom
2
and supporting the cutting disk for rotation; and said cutting head frame providing
3
selective pivot action of the cutting disk about a pivot axis; and
4
a cutting head swivel operatively connected to the cutting head frame;
5
said cutting head swivel providing selective swivel action of the cutting disk about
6

a swivel axis which is generally traverse to the pivot axis of the pivoting cutting head frame. 7
8

18. An implement according to claim 18 wherein the auxiliary engine 1
provides power to the cutting disk and to at least one of the following: 2

3
said cutting head frame for the selective pivot action of the cutting disk
about the pivot axis; and 4

5
said cutting head swivel for the selective swivel action of the cutting disk
about the swivel axis. 6